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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,281	07/30/2001	Naofumi Kobayashi	FUJI 18.872	2411
26304	7590	07/14/2005	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP			HAN, CLEMENCE S	
575 MADISON AVENUE			ART UNIT	
NEW YORK, NY 10022-2585			PAPER NUMBER	
			2665	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/918,281	KOBAYASHI, NAOFUMI	
	Examiner	Art Unit	
	Clemence Han	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/11/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 1-10, 12-14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda et al. (US 6,201,810) in view of Lyon et al. (US 6,721,273).

Regarding to claim 1, Masuda teaches a communication device connectable to an IP network, comprising: an input queue (buffers in 3 in Figure 1) holding received packets until the packets are sent for a next process; a congestion monitor unit 14 monitoring the input queue and determining whether the communication device is congested (Column 5 Line 52-54); and a congestion information creating unit 16 creating congestion information (Figure 6) concerning a congested state of the communication device when the congestion monitor unit detects the congested state thereof, the congestion information being sent to other devices connected the IP network (Column 5 Line 66 – Column 6 Line 2). Masuda, however, does not explicitly teach monitoring a frequency of occurrence of congestion. Lyon teaches monitoring a frequency of occurrence of congestion (Figure 19). It would have been obvious to one skilled in the art to modify Masuda to monitor a frequency of

occurrence of congestion as taught by Lyon in order to improve QoS (Column 17 Line 31-35).

Regarding to claim 2, Masuda teaches a routing table 13 storing information used for routing an input packet; and an updating unit updating the routing table upon receiving congestion information from another device (Column 7 Line 60-65).

Regarding to claim 3, Masuda teaches said congestion monitor unit detects a situation in which an input queue of the communication device overflows with packets so that packets are discarded (Column 8 Line 30-32).

Regarding to claim 4, Masuda teaches said congestion monitor unit detects a situation in which packets are stored an input queue of the communication device over a predetermined queue length (Column 5 Line 52-54).

Regarding to claim 5, Masuda teaches the congestion information created by said congestion information creating unit is sent to other communication devices adjacent to the communication device (Column 5 Line 66 – Column 6 Line 2).

Regarding to claim 6, Masuda teaches the congestion information created by said congestion information creating unit is sent to other communication devices located within given network range (Column 5 Line 66 – Column 6 Line 2).

Regarding to claim 7, Masuda teaches a unit for relaying congestion information received from another network to a route via which packets can be transported (Column 6 Line 23-27).

Regarding to claim 8, Masuda teaches a unit for determining whether a route that can avoid congestion for an input packet is available (Column 7 Line 4-9).

Regarding to claim 9, Masuda teaches a unit sending an input packet to an original route if congestion information is received both from another communication device in the original route and from a congested communication device in an alternative route (Column 5 Line 35-51).

Regarding to claim 10, Masuda teaches a unit discarding an input packet if congestion information is received both from another communication device and from a congested communication device in an alternative route (Column 5 Line 35-51).

Regarding to claim 12, Masuda teaches a unit 54 notifying other communication device of the congestion state monitored by said congestion monitor unit 14 and sending congestion information received from another communication device (Column 5 Line 55-65) to a route having a smallest frequency of occurrence of congested state based on the congestion information received (Masuda teaches selecting optimal route (Column 7 Line 4-9)). Masuda,

however, does not explicitly teach monitoring a frequency of occurrence of congestion. Lyon teaches monitoring a frequency of occurrence of congestion (Figure 19). It would have been obvious to one skilled in the art to modify Masuda to monitor a frequency of occurrence of congestion as taught by Lyon in order to improve QoS (Column 17 Line 31-35).

Regarding to claim 13, Masuda teaches a unit sending information indicative of restoration from the congested state to other communication networks (Column 8 Line 12).

Regarding to claim 14, Masuda teaches congestion monitor unit monitors one of an input interface and an output interface of said communication device (Column 5 Line 52-54).

Regarding to claim 16, Masuda teaches a communication control method applied to a device connected to an IP network, comprising the steps of: receiving a plurality of packets (Column 5 Line 19-21); holding the received packets in an input queue (buffers in 3 in Figure 1) until the packets are sent for a next process; monitoring the input queue and determining whether the communication device is congested (Column 5 Line 52-54); and creating congestion information (Figure 6) concerning a congested state of the communication device when the congested state thereof is detects, the congestion information being sent to other devices

connected the IP network (Column 5 Line 66 – Column 6 Line 2). Masuda, however, does not explicitly teach monitoring a frequency of occurrence of congestion. Lyon teaches monitoring a frequency of occurrence of congestion (Figure 19). It would have been obvious to one skilled in the art to modify Masuda to monitor a frequency of occurrence of congestion as taught by Lyon in order to improve QoS (Column 17 Line 31-35).

Regarding to claim 17, Masuda teaches updating a routing table storing information used for routing an input packet upon receiving congestion information from another device (Column 7 Line 60-65).

Regarding to claim 18, Masuda teaches a system comprising: plurality of communication devices each connected to an IP network (Figure 1, nodes in Figure 10), each of the plurality of communication devices comprising: an input queue (buffers in 3 in Figure 1) holding received packets until the packets are sent for a next process; a congestion monitor unit 14 monitoring the input queue and determining whether the communication device is congested (Column 5 Line 52-54); and a congestion information creating unit 16 creating congestion information (Figure 6) concerning a congested state of the communication device when the congestion monitor unit detects the congested state thereof, the congestion information being sent to other devices connected the IP network (Column 5 Line

66 – Column 6 Line 2). Masuda, however, does not explicitly teach monitoring a frequency of occurrence of congestion. Lyon teaches monitoring a frequency of occurrence of congestion (Figure 19). It would have been obvious to one skilled in the art to modify Masuda to monitor a frequency of occurrence of congestion as taught by Lyon in order to improve QoS (Column 17 Line 31-35).

3. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda et al. in view of Lyon et al. and further in view of Greuel et al. (US Pub. 2002/0133584).

Regarding to claim 15, Masuda teaches a communication control method applied to a device connected to an IP network, comprising the steps of: receiving a plurality of packets (Column 5 Line 19-21); holding the received packets in an input queue (buffers in 3 in Figure 1) until the packets are sent for a next process; monitoring the input queue and determining whether the communication device is congested (Column 5 Line 52-54); and creating congestion information (Figure 6) concerning a congested state of the communication device when the congested state thereof is detects, the congestion information being sent to other devices connected the IP network (Column 5 Line 66 – Column 6 Line 2). Masuda, however, does not explicitly teach monitoring a frequency of occurrence of congestion. Lyon teaches monitoring a frequency of occurrence of congestion

(Figure 19). It would have been obvious to one skilled in the art to modify Masuda to monitor a frequency of occurrence of congestion as taught by Lyon in order to improve QoS (Column 17 Line 31-35). Masuda in view of Lyon, however, does not teach defining an accounting system based on a packet discard ratio determined based on a congestion avoiding control. Greuel teaches defining an accounting system based on a packet discard ratio determined based on a congestion avoiding control [0020]. It would have been obvious to one skilled in the art to modify Masuda in view of Lyon to monitor a frequency of occurrence of congested state as taught by Greuel in order to monitor the performance of a network [0006].

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the

advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


STEVEN NGUYEN
PRIMARY EXAMINER

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Examiner
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